

REMARKS

Reconsideration and allowance of the present application is respectfully requested.

The specification has been amended as shown above to provide the proper format of capitalizing the name of a trademark and to provide the generic terminology as requested by the Examiner.

Claim 1 has been amended as shown above to overcome the rejection of claim 1 under 35 USC 112, second paragraph and in response to the Examiner's "Claim Observations" in the Office Action.

Claims 1-5 remain in this application. Claim 1 has been amended. Claim 5 has been withdrawn.

In amended Figure 5 and Figure 9, the titles have been revised to correct typographical errors, as suggested by the Examiner.

In response to the restriction requirement under 35 USC 121, the applicants hereby confirm the election of Group I containing claims 1-4.

In response to the objections to the drawings, Figures 5 and 9 have been amended as discussed above and shown on the attached sheets to correct the titles, as suggested by the Examiner. Withdrawal of this objection accordingly requested.

In response to the objection to the specification, the trademark "ACRIT" has been capitalized and the generic terminology added by amending the specification, as discussed above. Withdrawal of this objection is accordingly requested.

Claims 1-4 have been rejected under 35 USC 112, second paragraph because the Examiner finds claim 1 to be indefinite for the reasons expressed at pages 5 and 6 of the Office Action.

Regarding claim 1, the Examiner finds the recitation of gloss retention of the weather resistant coating film to be indefinite because the conditions of “an accelerated weathering test by a carbon sunshine weather-o-meter” does not have the exposure conditions of this test described in the specification. Accordingly, claim 1 has been amended as shown above to delete the phrase concerning the gloss retention in an accelerated weathering test.

The Examiner has found τ to be indefinite in the mathematical formula recited in claim 1 because it depends upon unspecified intended uses. Accordingly, claim 1 has been amended to specify τ as being “exposure time.”

In view of the above, the applicants submit that all presently considered claims are fully allowable under Section 112, second paragraph.

With respect to the Claim Observations set forth in the Office Action, an interpretation of the expression “... the residual group of the ultraviolet absorptive compound in the dry coating film” in claim 1 is provided in section 14. However, this interpretation appears to be somewhat incorrect. Indeed, the “residual group of the ultraviolet absorptive compound” in claim 1 means the functional group of the ultraviolet absorptive compound”. The applicants have accordingly amended “residual group” to “functional group” in claim 1. It is clear from the whole disclosure of the present application that the “residual group of the ultraviolet absorptive compound” in question means “functional group”. The present invention is based on the inventors’ finding that the weather resistance is dominated by the absorption property and the amount of the ultraviolet absorptive compound, but not by the composition of the binder. For Example, in Table 3 in the present application the amount (concentration) of functional group of ultraviolet absorptive compound are compared with respect to Examples 1 and 2 and Comparative Examples 1 and 2.

Thus, the concentration of the functional group of ultraviolet absorptive compound is important to the present invention and that the interpretation set forth in the Office Action is incorrect. The revision of "residual group" to "functional group" in claim 1 does not add new matter.

In response to the Examiner's objection to the use of the word "may" in claim 1, the applicants have amended claim 1 to delete this word.

The applicants submit that all presently considered claims are in proper form.

The applicants respectfully traverse the rejection of claims 1-4 under 35 USC 102(b) in view of Yanauchi et al. This reference does not anticipate the presently claimed invention or make it obvious.

In the presently claimed invention, the coating material is adjusted so that the concentration C (mol/L) of the functional group of the ultraviolet absorptive compound in the dry coating film satisfies the mathematical formula recited in claim 1.

The relation between the amount of the ultraviolet absorptive compound present in the coating film after coating and the weather resistance of the coating film formed a basis for the presently claimed invention. Briefly, the weather resistance of a coating film is dominated by the absorption characteristics of and the amount of the ultraviolet absorption compound in the film, regardless of the composition of a binder used in the film. This relationship is reflected in the mathematical formula recited in claim 1. According to the formula recited in claim 1, therefore, one can determine the necessary and sufficient amount of an ultraviolet absorption compound to give a weather resistance for a given period of time. In the coating film according to the presently claimed invention, therefore, an ultraviolet absorption compound, which is

generally expensive, is used with great efficiency. The coating film of the present invention significantly distinguishes from that of Yanauchi in this regard.

Prior to the presently claimed invention, the relation between the amount of a ultraviolet absorption compound in a coating film and the weather resistance of the coating film was not known (see lines 3-10 on page 3 of the present specification). Thus, a generally expensive ultraviolet absorption compound was not efficiently used (see lines 10-16 on page 3 of the present specification).

As the Examiner acknowledges under item 19 in the Office Action, Yanauchi is silent about the limitation, "the coating material is designed such that, when the coating material is coated on an article and dried, the concentration (mol/L) of the residual group of the UV absorptive compound in the dry coating film may satisfy the expression $\epsilon dC \geq 129 \cdot \log \tau - 367$." Further, the relation between the amount of the UV absorption compound and the weather resistance is not considered in Yanauchi. The inventions according to present claims 1-4 are, therefore, neither anticipated nor made obvious by the teachings of Yanauchi.

Thus, in the coating films according to present claims 1-4 the amount of the UV absorption compound can be produced in a highly efficient manner, based on the formula recited in claim 1. Such a feature is neither described nor suggested in Yanauchi et al. Accordingly, the presently claimed invention is fully allowable under Section 103(a) as well as Section 102(b) in view of the cited art.

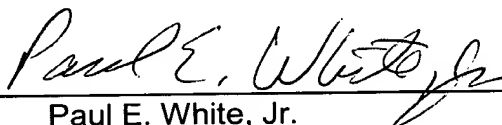
The applicants respectfully traverse the provisional rejection of claims 1-4 under 35 USC 101 as claiming the same invention as that of claims 1-4 of co-pending published Application no. US 2003/0072871 A1 (corresponding to U.S. Application Serial No. 10/173,781). Please be aware that claims 1-4 of Application Serial No. 10/173,781 were cancelled in a Preliminary Amendment dated June 19,

2002. Accordingly, no potential double patenting exists. Withdrawal of this rejection is respectfully requested.

In view of the above, it is believed that this application is in condition for allowance and a Notice to that effect is respectfully requested.

Respectfully submitted,

MANELLI DENISON & SELTER, PLLC

By 
Paul E. White, Jr.
Reg. No. 32,011
Tel. No.: (202) 261-1050
Fax No.: (202) 887-0336

2000 M Street, N.W.
Seventh Floor
Washington, D.C. 20036-3307
(202) 261-1000